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UNITED STATES PATENT AND TRADEMARK OFFICE

2 Application No: 10/816,243 Confirmation No.: N/A
3 Applicant: WILLIAM H. RICHEY & JOHN BOLDING
4 Filing Date: APRIL 1, 2004
5 Title: LOAD LOWERING SYSTEM
6 Group Art Unit: N/A
7 Examiner: N/A
8 Attorney Docket No: XHAT 101CIP
9
10 June 17, 2004
11 Bellevue, Washington 98004
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15 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER R37 C.F.R. 1.97

15 In compliance with Applicant's and his attorney's duty of disclosure under 37 CFR
16 1.56, the Applicant does hereby submit the following Information Disclosure Statement,
17 Form PTO - 1449, and copies of the references listed thereon.

18 A patent search was manually conducted for the invention described in the above-
19 referenced patent application. In the course of the search, no patents were found for an
20 apparatus that has the same structural features or that operates in the same manner such as the
21 invention listed above. The following thirty (30) patents, however, were noted as being of
22 interest and are hereby brought to the Examiner's attention as references AA - BD. The
23 significance of each listed reference is as follows:

1 AA Reference U.S. Patent No 6,328,129 (Ferguson) discloses a fire escape system
2 for providing an apparatus for escape from building structures. The fire escape system
3 includes a container having an open front, a back wall, and a door hingedly attached to the
4 container and closeable over the open front, and further includes a motor, a switch member
5 connected to the motor, a battery connected to the switch member, a rotatable first shaft
6 journaled inside the container and driven by the motor, a pair of elongate flexible members
7 carried by the rotatable first shaft, a plurality of rungs having a plurality of stand-off members
8 at the ends thereof and being securely attached to the elongate flexible members with the
9 stand-off members being moveably received in tracks. As a second embodiment, a winch,
10 which includes a motor that carries a flexible line which is carried about two pulleys and is
11 connected to a lift member, which is operated by remote control. As a third embodiment, a
12 spool member carries a flexible line which is carried about two pulleys and is connected to a
13 pair of elongate flexible members which support a plurality of rungs.

14 AB. Reference U.S. Patent No. D370,736 (Douglas et al) discloses an ornamental
15 design for an escape ladder.

16 AC. Reference U.S. Patent No. 5,377,778 (Lan) discloses an emergency corridor
17 and ladder for multi-storied building comprising a bridge corridor, a safety ladder and a
18 temporary emergency shelter. The structure is provided in each floor of the multi-storied
19 building. The bridge corridor is connected to the emergency exit on each floor, both sides of
20 the bridge corridor are respectively provided with a fire-blocking wall, and a safety ladder is
21 provided along the bridge corridor such that the safety ladder are connected together from the
22 top floor to the ground level. Said safety ladder has a passage to the sun deck of the
23 emergency shelter. A feed through emergency escape rod is provided in the emergency

1 shelter in which a manhole is opened in alternate floors. Rescuers gain access to the
2 emergency shelter and rescue the casualty during an emergency.

3 AD. Reference U.S. Patent No. 4,815,561 (Ostrander) discloses an escape device in
4 accordance with the present invention includes an escape opening through the outside wall of
5 a building at second and higher floor level, such opening being tall enough to allow a person
6 to walk through it. A ladder, comprised of at least two sections, is pivoted to structure in the
7 opening and is extendable to reach ground level outside the building. The ladder is stowed in
8 the escape opening and ready for instant use in an emergency.

9 AE. Reference U.S. Patent No. 4,703,832 (Fontenot) discloses an escape apparatus
10 for elevated structures, such as multi-story buildings, offshore platforms and the like. An
11 elongated pole is pivotally connected to the elevated structure to move between a stored
12 position, in substantial alignment with a horizontal level of the structure, and a ready,
13 substantially vertical position. A person escapes the elevated structure by sliding down the
14 vertically positioned pole.

15 AF. Reference U.S. Patent No. 4,548,298 (Born) discloses the invention
16 comprising two embodiments of a hydraulically powered rotor and screw elevator equipped
17 with a fail-safe control system. In each embodiment, a dual lead steep-pitched screw is
18 embraced by a rotor supporting the cab. In one embodiment, the rotor is driven and in the
19 other the screw is driven. In each embodiment, the driven component auto-rotates during
20 downward cab travel and is hydraulically driven during upward cab travel by a motor-pump
21 unit. This unit functions as a motor during upward cab travel and as a pump during
22 downward cab travel to provide pressurized fluid to various system components including the

1 hydraulic speed control components. Pressurized fluid is supplied in varying volumes by a
2 plurality of pumps connected in parallel. Both the rotor and the screw are equipped with fail-
3 safe brakes. The driven component in each embodiment includes a normally closed brake
4 releasable by a fail-safe control system including switches, relays and valves cooperating to
5 safeguard against non-functional components and all hazards. The screw may be a tube
6 supported from the upper end of a coaxial tube embracing both the tubular screw and its
7 rotor, the supporting tube being slotted to accommodate brackets between the rotor and the
8 cab or other load.

9 AG. Reference U.S. Patent No. 4,515,241 (Gebelius) discloses a flag-pole (1),
10 tiltable in direction towards an adjacent house or building, and at the lower portion (1') being
11 provided with a device (6) facilitating climbing or transport of persons to the outer edge
12 portion of the roof surface (2) of the house or building. At least the top portion (1") of the
13 flag-pole is tiltable in relation to a vertical plane, thereby extending in a parallel relationship
14 to the roof surface (2), but at a distance therefrom. Alternatively, both the lower portion (1')
15 and the top portion (1") may be tiltable in the same direction, the top portion (1") thereby
16 taking up the above described position, whereas the lower portion (1') takes up a less inclined
17 position, intended to move the upper part of the lower portion (1') adjacent to the outer edge
18 portion of the roof surface (2). The lower portion (1') of the flag-pole is preferably arranged
19 with a longitudinally extending groove or channel, housing a step or ladder device (6), which
20 can be swung out from the groove or channel, thus facilitating climbing between the ground
21 surface and the lower edge portion of the roof.

1 AH. Reference U.S. Patent No. 4,488,621 (Schiewe) discloses an emergency
2 elevator, which has a guided cage and a cylinder with closed ends. Valves communicate with
3 the interior of the cylinder adjacent its ends. An additional valve communicates with the
4 interior of the cylinder at a location between one end of the cylinder and the associated valve.
5 A piston is slidably disposed in the cylinder and connected to the cage so that the downward
6 movement of the cage is restrained. A counterweight is coupled to the cage and is of a
7 sufficient weight to raise the cage when it is empty. The counterweight is conveniently
8 disposed within the cylinder and can be integral with the piston.

9 AI. Reference U.S. Patent No. 4,434,871 (Niedworok) discloses a present
10 invention that entails an emergency escape ladder that can be used to descend from one level
11 of a building downwardly to another level, after which the ladder may be repeatedly
12 repositioned for descending on downwardly in a like manner. Functionally the emergency
13 escape ladder includes a plurality of treads interconnected by a pair of flexible tie lines in the
14 form of chains.

15 AJ. Reference U.S. Patent No. 4,425,982 (Kibbie) discloses a telescoping pole that
16 is transported, by means of a hoist, from a stored location within a building to a sleeve
17 permanently mounted on a balcony or near a window. The pole is inserted into the sleeve and
18 telescoped to its full- extended position. A trolley is mounted on this pole. The user straps
19 himself in a seat, attaches the seat to the trolley, and suspends himself from the pole. Using a
20 hand-over-hand motion, the user propels himself away from the building to the end of the
21 pole where he may be rescued by firemen. In a second embodiment, the pole is telescopingly
22 mounted and permanently stored in the sleeve, thereby eliminating the need to transport the
23 pole. The sleeve is pivotally mounted on a stand for rotation about a vertical axis and the

1 pole, when stored therein, is interior to the side of the building. In the event of fire, the user
2 manipulates the pole by rotating it to a position, which permits it to be telescopingly extended
3 away from the side of the building. After extending the pole, the user escapes from the fire by
4 means of the trolley and seat, as described above.

5 AK. Reference U.S. Patent No. 4,341,286 (Gregory) discloses an improved, self-
6 storing, telescoping fire pole which can be thrust manually, mechanically, or electrically out
7 and away from a building at an angle, to an actuated position to provide a slide pole from a
8 building to the ground; and when actuated into its functioning position, also can provide a
9 safe and effective slide-support chute for carrying children, the physically handicapped, or
10 elderly people to ground level.

11 AL. Reference U.S. Patent No. 3,946,833 (Riehlmann) discloses a collapsible
12 ladder suitable for installation on high-rise buildings and capable of modification to be
13 architecturally unobstrusive and compatible with a variety of architectural designs is
14 described. The ladder comprises two or more telescoping stile pair sections in which the
15 upper stile section has an attached upper rung and the lower stile section has an attached
16 lower rung.

17 AM. Reference U.S. Patent No. 3,715,011 (Prather) discloses the post that extends
18 from the ground level alongside of a building to one or more windows of the floors above the
19 ground, and provides opposed tracks for roller and brake means of the portable carriers
20 placed near the windows for use of occupants of those floors to lower themselves to the
21 ground in case of a fire or other imminent danger.

22 AN. Reference U.S. Patent No. 3,692,145 (Banner) discloses a fire system device
23 to be mounted to an external wall of a building below a window.

1 AO. Reference U.S. Patent No. 3,477,543 (Vigluicci) discloses a concealed fire
2 exit for buildings and homes consisting of a first internal door, which is concealed by a
3 mirror within the structure and covers a second door forming part of the external wall of the
4 structure. The external door can be easily removed or pushed out to expose the exit and
5 permit a telescoping tube or other escape means to swing out in order to permit the occupants
6 to escape from the building.

7 AP. Reference U.S. Patent No. 2,529,112 (Steele) discloses a fire escape for
8 buildings and more especially to means associated with each window of a building, which
9 can be unfolded and allowed to fall by gravity to form a ladder, which will reach to the next
10 window.

11 AQ. Reference U.S. Patent No. 1,110,566 (Laborda) discloses a climbing pulley
12 that is used for ascending and descending a suspended rope as a fire escape from buildings.

13 AR. Reference U.S. Patent No. 1,110,499 (Laborda) discloses a foot operated
14 elevator wherein a tubular member is provided with a climbing wheel arranged to be operated
15 by the feet of the operator for the purpose of elevating the device to be used for a fire escape.

16 AS. Reference U.S. Patent No. 885,560 (Worthington) discloses safety brakes
17 designed for use in connection with elevators, hoists and lifts for automatically arresting the
18 downward motion of the car and complete stop in the event of accidents, such as the breaking
19 of the hoist rope or cable.

20 AT. Reference U.S. Patent No. 832,113 (Worthington) discloses an automatic
21 brake for elevator-cars, dumb-waiters, the cars of inclined railways, and the like which will
22 be set into action when the hoisting mechanism breaks to stop the car.

23 AU. Reference U.S. Patent No. 780,249 (Withey) discloses an improved fire

1 escape that consists of an apparatus that is fixed to a building so that it may be always ready
2 for immediate use from a window near.

3 AV. Reference U.S. Patent No. 737,547 (Young) discloses a fire-escape system
4 that is required to obtain a good hold or attach oneself to the lowering rope or cable and
5 dropping from the window to descend to the ground.

6 AW. Reference U.S. Patent No. 509,106 (Shannon) discloses a fire escape in a
7 lengthwise guide on the outside of a building wall, a carriage for raising and lowering.

8 AX. Reference U.S. Patent No. 463,670 (Shannon) discloses a closed tube filled
9 with liquid or other suitable fluid with a plunger movable lengthwise in the tube, a valve for
10 permitting the liquid to pass above or below the plunger and movable upon a drum, and a
11 descending chain or rope.

12 AY. Reference U.S. Patent No. 401,106 (Backman) discloses a safety-stop for
13 elevators.

14 AZ. Reference U.S. Patent No. 392,753 (Read, Jr. & Coyle) discloses a speed-
15 governor for elevators for controlling the speed of elevator cars or cages.

16 BA. Reference U.S. Patent No. 378,882 (Glasscock) discloses an improved fire
17 escape, which will be capable of lowering people or goods from a high structure without
18 danger of breaking.

19 BB. Reference U.S. Patent No. 278,847 (Baker) discloses an object to produce a
20 device by which in case of fire persons can lower themselves to the streets from the upper
21 floors of hotels or other high buildings with perfect safety.

22 BC. Reference U.S. Patent No. 267,204 (Hinkle) discloses an elevator cage for
23 purposes of illustration, as hoisted by the cables or ropes for use of lifting light loads or to be

1 used as a fire-escape.

2 BD. Reference U.S. Patent No. 240,193 (Shaw) discloses a safety device for
3 elevators.

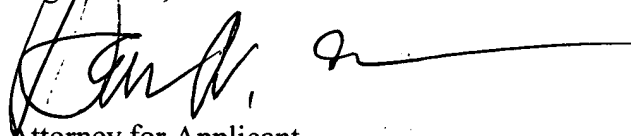
4 The Applicant and his attorney submit that the above-cited references taken alone or
5 in combination neither anticipate nor render obvious the present invention. None of the
6 references disclose or claim a load lowering system, comprising at least one friction rod
7 vertically mounted on a building, a friction collar disposed around said friction rod, a means
8 for creating a friction force between said friction collar and said friction rod when said
9 friction collar moves over said friction rod, at least one glide rod vertically mounted on a
10 building, said glide rod being spaced apart from and parallel to said friction rod, said glide
11 rod including a helical thread formed thereon, a guide collar disposed around said glide rod,
12 said guide collar including means for engaging said thread on said guide rod thereby causing
13 said glide rod to rotate as said glide collar travels over said glide rod, and, a support platform
14 disposed perpendicularly to said friction rod and said glide rod, said support platform being
15 supported by said friction collar when attached to said friction rod.

16 The listed references relate only to the general field of the disclosure and do not
17 constitute an admission that the references are relevant or material to the claims; they are
18 cited only as constituting the closest art of which the Applicant and his attorney are aware.

19 Respectfully submitted,

20 DEAN A. CRAINE

21 Reg. No. 33,591

22 

23 Attorney for Applicant

CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)Applicant(s): **WILLIAM H. RICHEY AND JOHN BOLDING**

Docket No.

XHAT 101CIP

Application No.

10/816,243

Filing Date

APRIL 1, 2004

Examiner

N/A

Customer No.

N/A

Group Art Unit

N/AInvention: **LOAD LOWERING SYSTEM**I hereby certify that this **INFORMATION DISCLOSURE STATEMENT***(Identify type of correspondence)*

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

JUNE 21, 2004*(Date)***DEAN A. CRAINE***(Typed or Printed Name of Person Mailing Correspondence)*
*(Signature of Person Mailing Correspondence)***Note: Each paper must have its own certificate of mailing.**

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>				Docket Number (Optional) XHAT 101CIP		Application Number 10/816,243			
				Applicant(s) WILLIAM H. RICHEY AND JOHN BOLDING					
				Filing Date APRIL 1, 2004		Group Art Unit N/A			

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA.	6,328,129	12/11/2001	FERGUSON	182	70	06/23/2000
	AB.	D370,736	06/11/1996	DOUGLAS ET AL.	D25	64	08/12/1994
	AC.	5,377,778	01/03/1995	LAN	182	48	09/22/1993
	AD.	4,815,561	03/28/1989	OSTRANDER	182	21	05/22/1987
	AE.	4,703,832	11/03/1987	FONTENOT	182	100	08/08/1986

U.S. PATENT APPLICATION PUBLICATIONS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

OTHER DOCUMENTS			(Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>				ATTY DOCKET NO. XHAT 101CIP		APPLICATION NO. 10/816,243		
				APPLICANT(S) WILLIAM H. RICHEY AND JOHN BOLDING				
				FILING DATE APRIL 1, 2004		GROUP ART UNIT N/A		
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AF.	4,548,298	10/22/1985	BORN	187	25	03/30/1983	
	AG.	4,515,241	05/07/1985	GEBELIUS	182	96	03/21/1984	
	AH.	4,488,621	12/18/1984	SCHIEWE	187	70	12/17/1981	
	AL.	4,434,871	03/06/1984	NIEDWOROK	182	198	03/03/1983	
	AJ.	4,425,982	01/17/1984	KIBBIE	182	36	03/10/1981	
U.S. PATENT APPLICATION PUBLICATIONS								
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U.S. PATENT DOCUMENTS

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	AK.	4,341,286	07/27/1982	GREGORY	182	10	11/12/1980
	AL.	3,946,833	03/30/1976	RIEHLMANN	182	20	12/13/1973
	AM.	3,715,011	02/06/1973	PRATHER	182	100	04/10/1972
	AN.	3,692,145	09/19/1972	BANNER	182	70	04/26/1971
	AO.	3,477,543	11/11/1969	VIGLUICCI	182	76	10/23/1967

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U.S. PATENT DOCUMENTS							
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	AP.	2,529,112	11/07/1950	STEELE	228	44	07/26/1947
	AQ.	1,110,566	09/15/1914	LABORDA			04/27/1914
	AR.	1,110,499	09/15/1914	LABORDA			02/09/1914
	AS.	885,560	04/21/1908	WORTHINGTON			01/30/1907
	AT.	832,113	10/02/1906	WORTHINGTON			09/19/1905

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	AU.	780,249	01/17/1905	WITHEY			07/03/1903
	AV.	737,547	08/25/1903	YOUNG			01/09/1903
	AW.	509,106	11/21/1893	SHANNON			09/30/1892
	AX.	463,670	11/24/1891	SHANNON			04/20/1891
	AY.	401,106	04/09/1889	BACKMAN			02/14/1889

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	AZ.	392,753	11/13/1888	READ & COYLE			01/05/1888
	BA.	378,882	03/06/1888	GLASSCOCK			11/28/1887
	BB.	278,847	06/05/1883	BAKER			02/20/1883
	BC.	267,204	11/07/1882	HINKLE			10/16/1882
	BD.	240,193	04/12/1881	SHAW			02/05/1881

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